

Claims

WHAT IS CLAIMED IS:

1. A socket assembly for a meter box, said socket assembly comprising:

a plurality of power line connectors for connection to electric power lines of an electric power line system, said 5 power line connectors being adapted to mate with mating connectors of an electric meter, each of said power line connectors comprising

a jaw,

10 a jaw support comprising a base, and a jaw mount extending up from the base mounting said jaw for pivotal movement between open and closed positions,

15 a socket formed between said jaw and said jaw mount for receiving an electrical connector of said electric meter, and

a current diverter for diverting some electric current from said socket along a current path separate from said jaw mount thereby to reduce the amount of current flowing through the jaw mount.

2. A socket assembly as set forth in claim 1 wherein said current diverter is configured to reduce the amount of current flowing through the jaw mount such that the temperature at any location on the jaw and jaw mount will not exceed a 5 predetermined temperature above ambient temperature.

3. A socket assembly as set forth in claim 2 wherein said predetermined temperature above ambient is 65 degrees Celsius.

4. A socket assembly as set forth in claim 1 wherein said current diverter is configured for diverting said electric current from the socket to said base.

5. A socket assembly as set forth in claim 4 wherein said current diverter comprises a metal strip having an upper end in electrical contact with said socket and a lower end in electrical contact with said base.

6. A socket assembly as set forth in claim 5 wherein said upper end of the metal strip is configured to hook over an upper end of said jaw.

7. A socket assembly as set forth in claim 6 wherein said lower end of said metal strip is configured to underlie said base.

8. A socket assembly as set forth in claim 7 further comprising a fastener fastening said lower end of the metal strip to said base.

9. A socket assembly as set forth in claim 4 wherein said jaw comprises a rocker arm pivoted on the jaw mount for swinging on an axis generally parallel to said base, said rocker arm having an inner surface facing toward said jaw
5 mount, an outer surface facing away from said jaw mount, an upper end spaced above said pivot axis, and a lower end spaced below said pivot axis, said current divider comprising a metal strip extending from the upper end of said rocker arm down

adjacent the outer surface of the rocker arm to the base of
10 the jaw support.

10. A socket assembly as set forth in claim 9 wherein
said metal strip has an upper end configured to hook over the
upper end of the rocker arm into said socket, and a lower end
configured to underlie the base of the jaw support.

11. A socket assembly as set forth in claim 10 wherein
said jaw support comprises a contact arm extending up from the
base having an inner surface facing toward said jaw mount and
an outer surface facing away from said jaw mount, said metal
5 strip extending on the outside face of the contact arm.

12. A power line connector for use in a meter box socket
assembly, comprising:

a jaw;

5 a jaw support comprising a base and a jaw mount extending
up from the base mounting said jaw for pivotal movement
between open and closed positions;

a socket formed between said jaw and said jaw mount for
receiving an electrical connector of an electric meter; and

10 a current diverter for diverting some electric current
from said socket along a current path separate from said jaw
mount thereby to reduce the amount of current flowing through
the jaw mount.

13. A socket assembly as set forth in claim 12 wherein
said current diverter is configured to reduce the amount of

current flowing through the jaw mount such that the
temperature at any location on the jaw and jaw mount will not
5 exceed a predetermined temperature above ambient temperature.

14. A socket assembly as set forth in claim 13 wherein
said predetermined temperature above ambient is 65 degrees
Celsius.

15. A power line connector as set forth in claim 12
wherein said current diverter is configured for diverting said
electric current from the socket to said base.

16. A power line connector as set forth in claim 15
wherein said current diverter comprises a metal strip having
an upper end in electrical contact with said socket and a
lower end in electrical contact with said base.

17. A power line connector as set forth in claim 16
wherein said upper end of the metal strip is configured to
hook over an upper end of said jaw.

18. A power line connector as set forth in claim 17
wherein said lower end of said metal strip is configured to
underlie said base.

19. A power line connector as set forth in claim 18
further comprising a fastener fastening said lower end of the
metal strip to said base.

20. A power line connector as set forth in claim 15
wherein said jaw comprises a rocker arm pivoted on the jaw
mount for swinging on an axis generally parallel to said base,
said rocker arm having an inner surface facing toward said jaw

5 mount, an outer surface facing away from said jaw mount, an upper end spaced above said pivot axis, and a lower end spaced below said pivot axis, said current divider comprising a metal strip extending from the upper end of said rocker arm down adjacent the outer surface of the rocker arm to the base of
10 the jaw support.

21. A power line connector as set forth in claim 20 wherein said metal strip has an upper end configured to hook over the upper end of the rocker arm into said socket, and a lower end configured to underlie the base of the jaw support.

22. A power line connector as set forth in claim 21 wherein said jaw support comprises a contact arm extending up from the base having an inner surface facing toward said jaw mount and an outer surface facing away from said jaw mount,
5 said metal strip extending on the outside face of the contact arm.

23. A power line connector as set forth in claim 22 wherein said metal strip is curved between its upper and lower ends to contact the outer surface of the rocker arm at a location below said pivot axis.

24. A current diverter for use in a meter box socket assembly, said assembly comprising a jaw, a jaw support comprising a base and a jaw mount extending up from the base mounting said jaw for pivotal movement between open and closed
5 positions, and a socket formed between said jaw and said jaw mount for receiving an electrical connector of an electric meter, said current diverter comprising:

10 a conductor adapted to be installed on said jaw support for diverting some electric current from said socket along a current path separate from said jaw mount thereby to reduce the amount of current flowing through the jaw mount.

25. A socket assembly as set forth in claim 24 wherein said current diverter is configured to reduce the amount of current flowing through the jaw mount such that the temperature at any location on the jaw and jaw mount will not 5 exceed a predetermined temperature above ambient temperature.

26. A socket assembly as set forth in claim 25 wherein said predetermined temperature above ambient is 65 degrees Celsius.

27. A current diverter as set forth in claim 24 wherein said conductor comprises an elongate metal strip having an upper end configured for electrical contact with said socket and a lower end configured for electrical contact with said 5 base.

28. A current diverter as set forth in claim 27 wherein said upper end of the metal strip is configured to hook over an upper end of said jaw.

29. A current diverter as set forth in claim 27 wherein said lower end of said metal strip is configured to underlie said base.

30. A current diverter as set forth in claim 29 further comprising a fastener fastening said lower end of the metal strip to said base.